3: Mirchuk S-4 (no date) 1949 RD1 Ukraine RD1

considerably. For 1938 the average figure for grain was given as 10.9 q/ha, for 1939 = 13.9 q/ha, for 1940 = 19.5 q/ha ("Visti" of 11. II. 1941). The average for those three years would be 13 q/ha, higher by 50 % than the average for 1931—1935. As these data were compiled for a meeting of the communist party, a tendency to propaganda must be borne in mind; even in official Soviet statistics, final figures are often more modest than those just quoted. But, in spite of an undisputed increase in yield, the economy of Ukraine must either be strengthened or increased, or both, if it is to be healthy.

241 433

2. Soil and Climate

Ukraine contains 44 % of the Black Earth in Europe (160.5 million ha) and almost 8 % of that in the whole world (900 million ha) and is one of the largest Black Earth areas in existence. In Ukraine itself ³/₄ of the entire soil is Black Earth and only ¹/₄ podsol earth, mountain soil and the good renzine soil of Galicia. Podsol earth predominated in Podlakhia, the Kholm district, North Volynia, in Galician Subcarpathia, in the flats round the Syan and the Upper Buh, in Polesya and partly in the district of Chernyhiv.

134 ●

Black Earth is one of the best soils and excellently suited to grain. Its humus content is high, its structure crumbly and it is extremely porous. The humus binds certain quantities of moisture which are distributed fairly evenly. Black Earth dries quickly on the surface but lower down it retains moisture for a fair time, even during drought. It preserves its natural fertility for a long time, does not call for any complicated preparation and is easy to work. It requires no manure which may be positively bad for it and even when exploited, the soil preserves itself, so to speak. It needs a relatively small amount of seed.

It is not necessary to have any specially developed agricultural implements on Black Earth: motor-plows and power-driven agricultural machinery are eminently suitable for the great plains that all demand the same treatment. That is why the tendency to mechanisation and to introduce big-scale operations is particularly marked in the Black Earth areas.

241

4: Allen H-4 (no date) 1941 RD1 Ukraine RD1

and the Middle East have been left in suspense, a territory the size of Europe and new routes into the heart of China and ultimately to the Pacific have been brought under Soviet control. Under these circumstances 'the wheat-fields of the Ukraine' receded again into the background and became of only local importance: the more so since, in the two Soviet 'Economic Plans', interest in South-Eastern Russia has been concentrated on the industrial development of the New Russian region. These conditions are illustrated by the growth of industrial centres like Kharkov, Ekaterinoslav, Lugansk, Zaporozhie, and the decline of the great grain port of Odessa.

The agricultural wealth of the Ukraine has never in fact justified the enthusiasm which it has inspired from the time of the seventeenth-century Polish poet quoted in an earlier context to the more recent period of Herr Hitler and his apostles of *Lebensraum*. The natural conditions of the Ukraine are such that they really generously reward agricultural labour, but they exact always patient, strenuous and systematic toil.

Natural conditions differ greatly over the expanse of the country which Michael Dragomanov considered to constitute 'Greater Ukraine'. The agricultural 'age' of these territories differs in the extreme. In New Russia agriculture is only a century old, while Galicia has supported a numerous population of husbandmen for nearly a thousand years.

Galicia is one of the oldest agricultural lands of all Europe and conditions there have hardly altered since the days of Daniel and his *boyars*. The Galician earth, black in the eastern part, is tired old soil, impoverished by incessant labour, itself prompted and intensified by the ever-growing care of an ever-growing population to acquire its daily bread. Owing to the density of the population (110, and in some regions 132, inhabitants to the square kilometre) the area of holdings had been reduced to a minimum: 46 per cent of the farms comprise 2 hectares of land and sometimes less; 37 per cent comprise from 2 to 5 hectares. In a countryside where urban life has remained relatively stagnant live 75 per cent of the total population; while all commerce and crafts remain in the hands of the Jews in the large towns and in many of the villages, there is a 50 per cent surplus of hands among agricultural labourers. The peasants, Poles and Ukrainians alike, used to migrate to Germany and France as casual labour; before the last war they emigrated also in large numbers to Canada and the United States.

These arduous conditions of peasant life gradually developed a capacity for organization. Driven by necessity, the Galician peasantry set up a network of co-operatives for production and

4: Allen H-4 (no date) 1941 RD1 Ukraine RD1

distribution. These co-operatives formed the basis of a certain national unity which found expression in the political field.

Volhynia, partitioned after the war of 1920 between the Poles and the Soviets, is nearly as old an agricultural country as Galicia. Here the strips of rich black earth alternate with sandy and wooded country. Although density of population is not so great as in Galicia, poverty is perhaps even greater, owing to a lack of that capacity for organization which helps the Galician labourers to survive. The large estates of the Polish nobility have long disappeared; after the last war the Polish Government divided up the land. Numerous strips were allotted to Polish soldiers on the expiration of their service—with the intention of strengthening the Polish ethnic and cultural element in the region. The disappearance of the large estates, as in Transylvania and Roumania, had a deleterious effect on agricultural production and on the proper exploitation of the forests. The majority of the people lead a half-starved existence, and the young men dream of emigration to South America. In 1937, 25 per cent of the population of Polish Volhynia had neither bread nor wood.

Podolia has been a land of cultivation since the Middle Ages, although the soil was broken up two or three hundred years later than in Galicia and Volhynia. Now, as before the period of war and revolution (1914–20), Podolia remains in a close economic relationship to the other parts of the Ukraine. The black earth of this favoured province is really fruitful and well watered by numerous small rivers; climatic conditions are better than anywhere throughout the Ukraine—rain is plentiful and regular and the winters are short. It was probably the fields and pastures, the hillocks and woods of Podolia which the Polish poet had in mind when he wrote lyrically of 'the birthplace of Ceres and Diana'. Horticulture and apiculture have long flourished there.

In the past social conditions varied with the political situation according to whether the small landowners (Ukrainian Cossacks) or the Polish landlords were in the ascendant. During the eighteenth century Polish elements had the upper hand and for some time Podolia remained the last refuge of the Polish aristocracy. Polish social influences survived the Three Partitions, and it was only after the Polish Insurrection of 1830 that conditions began to change in favour of the Russian majority in the population.

Towards the middle of the nineteenth century this rich land with its soft climate had become very densely populated. By the end of the century Podolia ranked second in density of population of all the regions of the Russian Empire. The Government of Moscow took

4: Allen H-4 (no date) 1941 RD1 Ukraine RD1

first place, but in its population was included the million inhabitants of the second capital of the Empire, while in Podolia there was no single town which numbered more than fifty thousand inhabitants. Density of population in Podolia reached the figure of 100 to the square kilometre, but the province was saved from the problems of over-population by the development of the large estates on capitalist lines. This process began about 1830 and developed on a large scale after 1870. The beet-sugar industry with its subsidiary alcoholic distilleries, flour mills and horticulture provided a variety of livelihood for a population which by 1897 had attained to nearly four and a half millions. Between the years 1896 and 1933 more than a million and a half peasants migrated from other districts of the Ukraine to Siberia and the steppes beyond the Volga, but in Podolia emigration was scarcely perceptible.

The southern part of the Government of Kiev along the right bank of the Dniepr enjoyed conditions somewhat similar to those in Podolia, while the northern districts resembled rather Volhynia. In the south a rich black earth supported a number of large estates where the beet-sugar industry, distilleries and mills flourished. In these southern districts were many well-to-do peasant farms covering up to 20 and 30 hectares apiece. Wheat was grown in sufficient quantities to satisfy local needs and to supply the six hundred thousand inhabitants of the city of Kiev. At the beginning of the century the population of the Government of Kiev amounted to over four and a half millions. At that time the three Governments of right-bank Ukraine (Kiev, Podolia, Volhynia) contained fourteen million inhabitants with an average density of 70–80 people per square kilometre. Such numbers were quite 'European' in their proportions and should have tended to discourage those Western dreamers who were even then casting envious eyes on the 'vacant lands' of the Ukraine.

It was almost equally difficult to discover 'vacant lands' in the Governments of *left-bank Ukraine*. In Poltava, Chernigov and Kharkov the density of population amounted to 60–70 people per square kilometre. The uninterrupted belt of black earth in the Governments of Poltava and Chernigov had been under the plough only since the seventeenth century—and many parts of it not before the eighteenth century. This was the land of which Alexey Tolstoy wrote: 'Know ye the land where all breathes plenty and content, where rivers flow as silver clear.' There were scarcely any towns of importance in this rural elysium. The characteristics of the Government of Kharkov, on the other hand, were quite distinct from those of the two adjoining left-bank provinces: in the north-west,

4: Allen H-4 (no date) 1941 RD1 Ukraine RD1

the New Russian Governments) there were over 1 million hectares under beetroot. Just before the last war the annual production of beet in the Ukraine reached 150 million quintals: i.e. 18 per cent of world production. The production of Ukrainian beet sugar ranked fourth—after that of America, Germany and France. In 1913 the Ukraine produced 11 million quintals of crystallized sugar. This output, together with that of the Polish factories, covered all the needs of the internal market (which during the preceding twenty-five years had augmented fourfold) and provided substantial surplus for export to the Baltic and the Middle East.

In addition to the beet processing plants, about 60 per cent of the alcohol refineries (corn, potatoes) of the Empire were located in the Ukraine. The production of vegetable oil (particularly from sunflower seed) was also important.

It has been estimated by the Soviet paper *Pravda* that approximately 1 milliard of rubles a year was paid for services on the semi-industrialized estates of landowners throughout Russia: of this sum a considerable proportion was paid for the hire of horse transport (since landowners did not maintain a large number of draught horses but hired from the villages). Of this milliard, about 300,000,000 were paid out in the Ukraine. As the peasant population of the Ukraine numbered about fifteen millions, some 20 rubles a year per head of the population was earned on 'supplementary' work on the large estates. 'Only owing to the sugar and other agricultural industries could the dense population of the Ukraine exist in such comparatively well-to-do circumstances.'

Thus the agricultural economy of Podolia, Volhynia, Kiev, Chernigov and Poltava was based only partly on the production of cereals. With a population which reached nearly twenty millions, only about 2 million hectares were under wheat, while in New Russia, with a population about half that of the Ukrainian Governments, there were 4 million hectares under wheat. The Ukraine exported only small quantities of wheat to Poland and White Russia, which provinces drew the bulk of their supplies from New Russia. The real 'granaries' of Russia which supplied the whole Empire and exported a surplus abroad were the regions of the northern Caucasus and Trans-Volga with western Siberia and New Russia (including the Governments of Kherson and Ekaterinoslav with the northern part of Tauris and the southern part of Kharkov) In those regions the black earth really had a virgin quality during the first half of the nineteenth century; and its richness remains exceptional even now.

As a rule, the climatic conditions in the *New Russian Governments*

137 Between the zone of the forests and that of the deserts, a geographical zone which enjoys a rich vegetation of corns and grasses stretches across the Russian plain. It is the Steppe, which begins on the shores of the Black Sea and almost immediately behind the Carpathians, a little to the east of Lvov, in Polish Galicia, along longitude 22 degrees east, and which continues from west to east, growing gradually wider beyond the frontiers of the Ukraine, and passing the official and conventional limit of Europe without interruption into Siberia.

• 134 Treeless since time immemorial, the plain is here exceptionally fertile. The grasses which grow here since prehistoric times have formed a thick layer of humus by their organic remains, which particularly favours the growth of all cereals, close relations of the wild species of the Steppe, the *pyrei*. The fertility of the soil is not only due to its organic composition but also to its porous structure whose capillary qualities facilitate irrigation.

This famous ' black earth,' the *tchernoziom*, is nowhere so rich as in the Ukraine. It forms, while becoming somewhat poorer towards the east, the typical soil of the whole Steppe both in the Ukraine and in Siberia.

137 The transition between the region of the forests and the Steppe is also not sudden. Before disappearing definitely in the ocean of corn and grass, the forests become lighter and sparser and here and there, especially along the rivers, they advance into the Steppes.

131 Yet the frontier between the zone of the forests and that of the Steppe is the only natural border which one can find in the immensity of the Russian plain. Formerly a stable political boundary—as we shall see when studying the history of the Ukraine[1]—it represents nothing to-day either from the ethnical or the political point of view.

[1] [see category 116, PP. 27-106 --- Analyst]

131 eastern frontier at the 50th degree latitude north, while cutting the territory into two almost equal parts.

132 In the northern zone (Zone 1) the rainfall is everywhere greater than 50 centimetres, while in the southern zone (Zone 2) it is less than 50 centimetres and varies between 25 and 50 centimetres.

134 The predominant soils of Zone 1 are poor *tchernozioms*, that is to say somewhat exhausted by the currents of water which have deprived them of their humus to a varying extent in different regions, and have brought to them some sand and clay from their sources.

On the contrary, the lands of Zone 2 are rich and complete *tchernozioms*.

137 Zone 1 comprises a vast forest region which, while spreading along the courses of the river becomes little by little a land of light woods, is yet characterized by the general presence of forests.

Zone 2 has no forests and is the true Steppe.

131 This separation is in practice nothing else but the frontier between the Steppe as such and the *lesso-steppe* (a Steppe with occasional woods)—a geographical term which has been accepted by Russian scientists for a long time.

This border is also that which defined the cradle of Russia, the ancient principality of Kiev, separating it from the savage Steppe of the nomads. Therefore, already at that distant epoch, the separation between these two agro-climatic zones existed in practice. Thus justified from a geographical point of view, the border between these two zones is all the more acceptable, as it is in tune with an historic reality since the establishment of settled populations.

000 Each time when we treat the question of populations in our study (the difference of density, of social distribution, and of ethnical composition), of agriculture

[See category 116, pp. 139–140. — Analyst]

7:Bregy & Obolensky H-4, 5 (no date) 1940 RD1 Ukraine RD1

563 and the Greeks who competed with the merchant Jews in the great ports, where they formed very united and wealthy autonomous communities which to-day have been repatriated or dispersed.

II

Agriculture

241 Fundamentally an agricultural land, the Ukraine is particularly the land of cereals.

The incomparable richness of these lands, her temperate climate, and the aptitude of her population have made this branch of human activity the fundamental wealth of the country.

• 134 311 With the exception of the forest regions of the northwest, where sandy soil is met, nearly all the lands of the Ukraine are arable and actually only a few tens of thousands of hectares of waste land remain, which serve as natural pasturages and give an excellent hay which is very well suited for horses.

243 About 25,000,000 hectares are sown, of which 20,000,000 are growing cereals.

The abundance of nitrates in the surface layer of the earth, and its capillary structure, perfect for irrigation, allow the cultivation of the most valuable of cereals—

[311] wheat. The area that has been sown with this cereal occupies more than 35 per cent of the worked land of the Ukraine and its production rises to 90,000,000 quintals, representing almost 8 per cent of the world harvest and 18 per cent of the European harvest.

The cultivation of wheat seems to develop from year to year at the expense of barley and of rye, cereals of inferior quality.

From the end of the nineteenth century wheat has

9: Prothero G-4 (no date) 1920 RD1 Ukraine RD1

missionaires, dock and wharf labourers, outdoor servants, &c. The members of *artels* in the second group always receive employment in preference to other workers, as their trustworthiness is guaranteed by the *artel*, and the fact of their membership is some guarantee that they are efficient.

The *artels* are democratic and useful institutions, and, in a country where promptness and trustworthiness are somewhat rare qualities, they play a most valuable part in giving a measure of confidence and security to both employers and workmen.

(2) Agriculture

(*a*) *Products of Commercial Value*

The agricultural industry is the largest in the Ukraine, and employs the great majority of the population. The black-soil region extends over most of the area, only the Governments of Kiev, Podolia, and Chernigov, and the borders of the Black Sea, lying outside it. It follows that the suitability of the Ukraine for cereals is equal to that of any part of the world, and its surplus crops form a considerable proportion of the world's food-supply.

The mean area under cultivation in the period 1901–5 was 52,000,000 acres, producing 20,700,000 tons annually. Of this total, 45,600,000 acres were under breadstuff crops, and produced 15,000,000 tons. For the year 1914, the figures were 56,300,000 acres, producing 23,000,000 tons. Of this 50,400,000 acres were under breadstuff crops, with a return of 15,900,000 tons.

Rye is the principal crop, and is produced on the peasants' lands more largely than any other cereal. It is the staple breadstuff of the country, and the internal consumption absorbs a large part of the crop, a minor quantity only being exported. In some years the crop is not sufficient for the home demand, and the peasants have to use imported flour or substitutes.

Wheat is next in importance, and provides the largest surplus for export. It is mainly grown on

132 not be one of those terrible thunderstorms which /15/ hover threateningly over the villages for half a day at a time, sending down ghastly lightning or cloudbursts which wash away the humus. Nor should the moisture be accompanied by one of those icy snowstorms in which man and animal, shepherds and herds numbering in the thousands easily come to grief if they are caught by the impenetrable swirl of flakes on the open field.

137 The geographers who like to divide up the earth into zones studied Ukrainian soil with regard to its flora and found that north Ukraine down to Kiyev belongs to the region of north European forests where, besides oak, alder and birch, the spruce flourishes. In the south and southeast the dense forests open up into park landscapes and forest glades. The farther south one goes, the more scarce and sparse the islands of mighty oaks, lindens and elms become. This is the region of the wooded steppe which finally passes over into
● 134 the open, almost treeless grassy steppe. Seventy million hectares of Ukrainian soil is fertile black earth. It has erroneously been considered inexhaustible. Even though today the soil does not yet tolerate any artificial fertilizer, scholars are already racking their brains over the sad prospect that the natural fertility of black loam, the ideal of all farmers the world over, will be exhausted in about 50 years. Already at the time of the last czar, model farms and experimental stations sought ways and means to meet this danger.

*

000 Come along, comrade, and wander to the east toward the rising sun, into the land which at its greatest expanse is as long as the distance from Barcelona to Memel and as wide as the realm between the Brenner Pass and Kiel. Climb up from the merrily babbling Poprad through beech forests,